

LENOVO THINKSTATION

CAPTURING RAID 1 DEGRADATION USING MICROSOFT EVENT MANAGER

Lenovo™



Contents

OVERVIEW

SECTION 1 – CHECKING THE RAID1 STATUS MANUALLY

SECTION 2 – PREPARATION

SECTION 3 – CREATING THE RAID TASK

SECTION 4 – DOCUMENT REVISION HISTORY



Overview

Whenever a RAID configuration is setup, it is important to make sure that the RAID functionality is enabled, and the RAID is fully functional. For an instance, if you have RAID1 configuration it is best practice to check that the RAID1 is functional and not in a “degraded” mode.

This document provides a step by step guide to capture a status change of an Intel RST RAID1 configuration from normal operation to a degraded condition. For compatibility reasons, only standard Microsoft Windows 10 tools are used to realize this functionality.

This document was created and tested using:

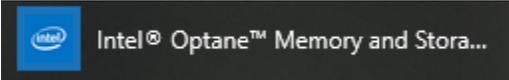
Lenovo ThinkStation P330 Gen1

Microsoft Windows 10 Pro (1903)

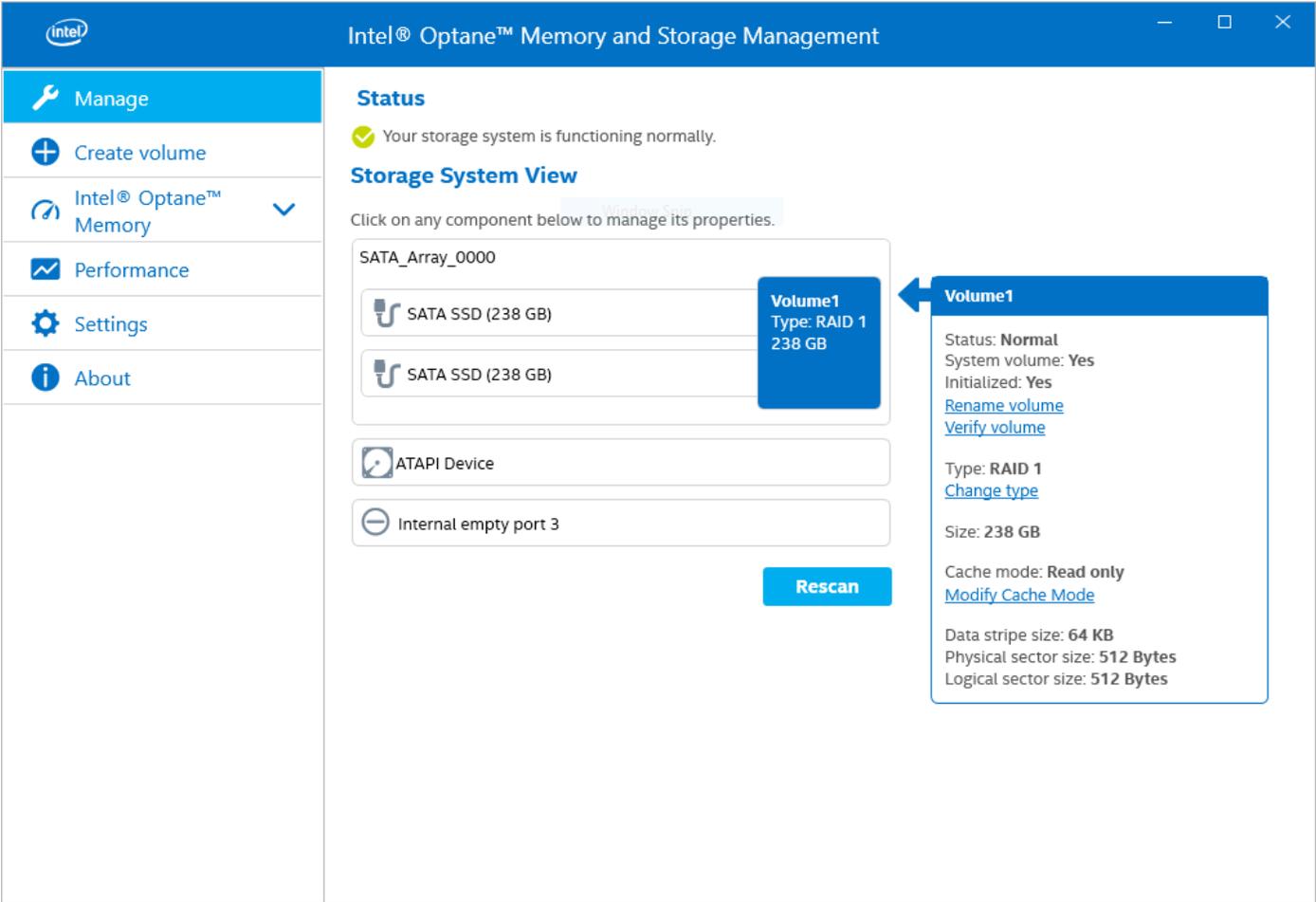
Intel RAID/AHCI Driver version: 17.5.0.1017

Section 1 – Checking the RAID status manually

If the **Intel RAID/AHCI Driver** is installed on the system, the RAID functionality can be checked by selecting:



The Intel RST Management window will show the current status of RAID:

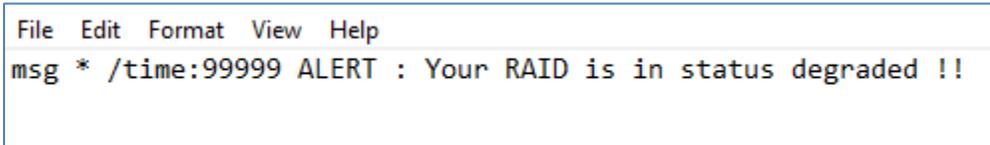


Here you can see that the RAID is in the **normal** state

Further actions can be selected in the **Manage** tab

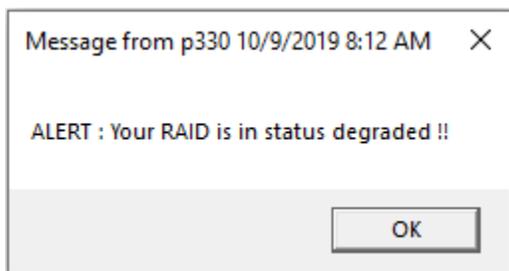
Section 2 – Preparation

Using the event notification, we need a small script that will push a message popup to the screen. Use your choice of text editor and create a file with a similar content



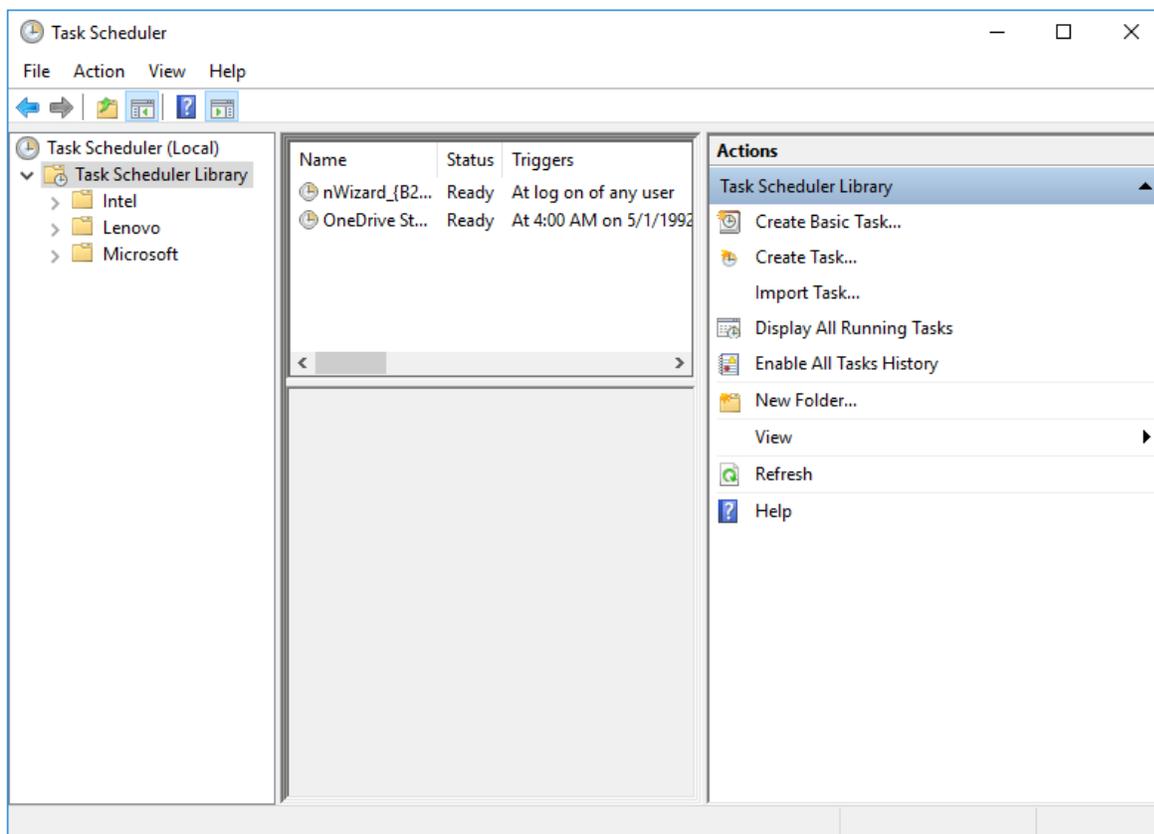
```
File Edit Format View Help
msg * /time:99999 ALERT : Your RAID is in status degraded !!
```

Save this file as **yourname.bat** in a directory and execute it once to see the popup message



Section 3 – Creating the RAID task

Use Microsoft Windows Task Scheduler to create the RAID status task. Follow the steps given below to get to your Task Scheduler: [Windows logo](#) ➡ [Windows Administrative Tools](#) ➡ [Task Scheduler](#)



Select **Create Task** to create a new task

The screenshot shows the 'Create Task' dialog box with the following details:

- Name:** Check RAID Status
- Location:** \
- Author:** DESKTOP-NUOC10U\p330
- Description:** Check if RAID1 is in status normal
- Security options:**
 - When running the task, use the following user account: DESKTOP-NUOC10U\p330
 - Run only when user is logged on
 - Run whether user is logged on or not
 - Do not store password. The task will only have access to local computer resources.
 - Run with highest privileges
- Hidden:**
- Configure for:** Windows 10

- Assign a name to the task
- Write a short description to define the functionality of the task
- Select **Run whether user is logged on or not** and **Do not store password**
- Select **Windows 10** in the **Configure for** option

Note: Do not hit **OK** yet as the task definition is currently not complete!

Select the **Triggers** tab as next

In the Trigger window select **New**

Edit Trigger

Begin the task: On an event

Settings

Basic

Custom

Log: System

Source: iaStorAC

Event ID: 129

Advanced settings

Delay task for: 15 minutes

Repeat task every: 1 hour for a duration of: 1 day

Stop all running tasks at end of repetition duration

Stop task if it runs longer than: 3 days

Activate: 10/ 8/2019 2:30:58 PM Synchronize across time zones

Expire: 10/ 8/2020 2:30:58 PM Synchronize across time zones

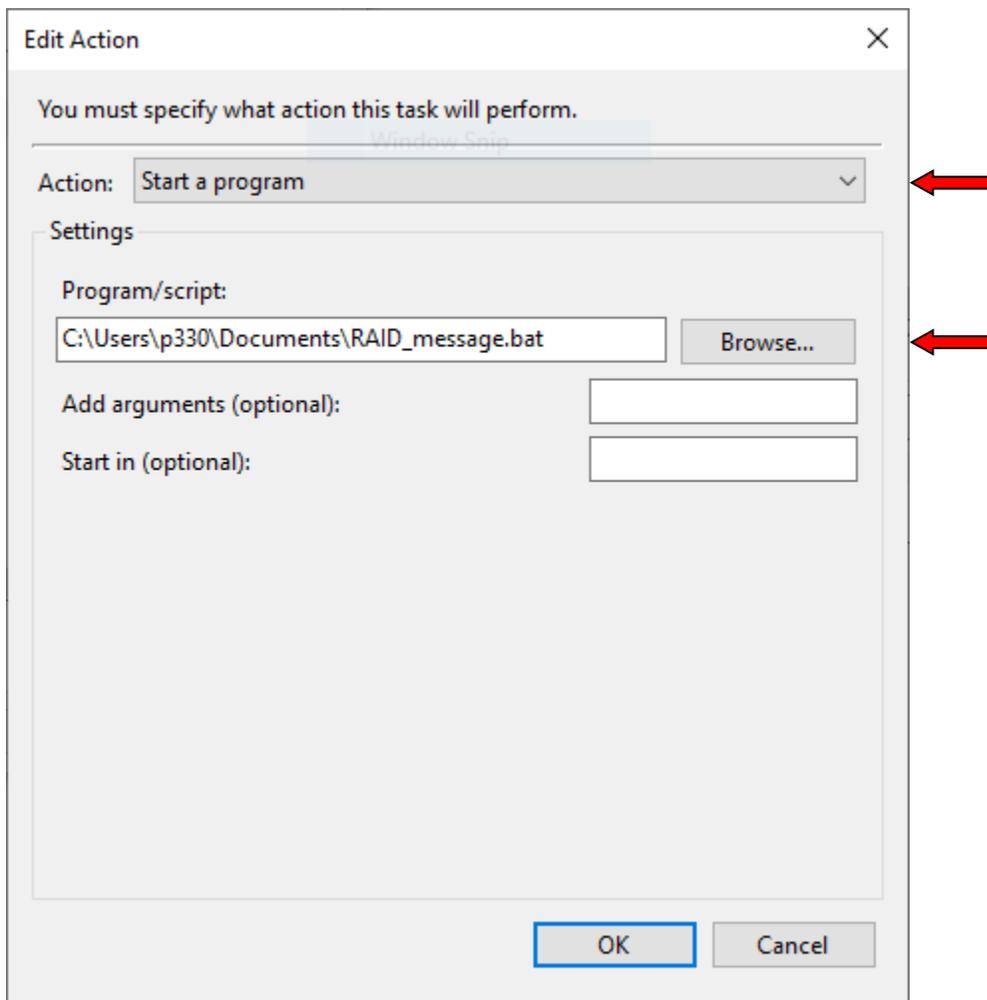
Enabled

OK Cancel

- Select **On an event** under **Begin the task** field
- Select **System** under **Log** field
- Select **iaStorAC** under **Source** field
- Type in the event id: **129**
- Hit **OK**

Select the **Actions** tab as next

In the Action window select **New**



- Select **Start a program** in the **Action** field
- Browse to the file location of your previously created script
- Hit **OK**

From here select the **Settings** tab

Create Task

General Triggers Actions Conditions **Settings**

Specify additional settings that affect the behavior of the task.

- Allow task to be run on demand
- Run task as soon as possible after a scheduled start is missed
- If the task fails, restart every:
- Attempt to restart up to: times
- Stop the task if it runs longer than:
- If the running task does not end when requested, force it to stop
- If the task is not scheduled to run again, delete it after:

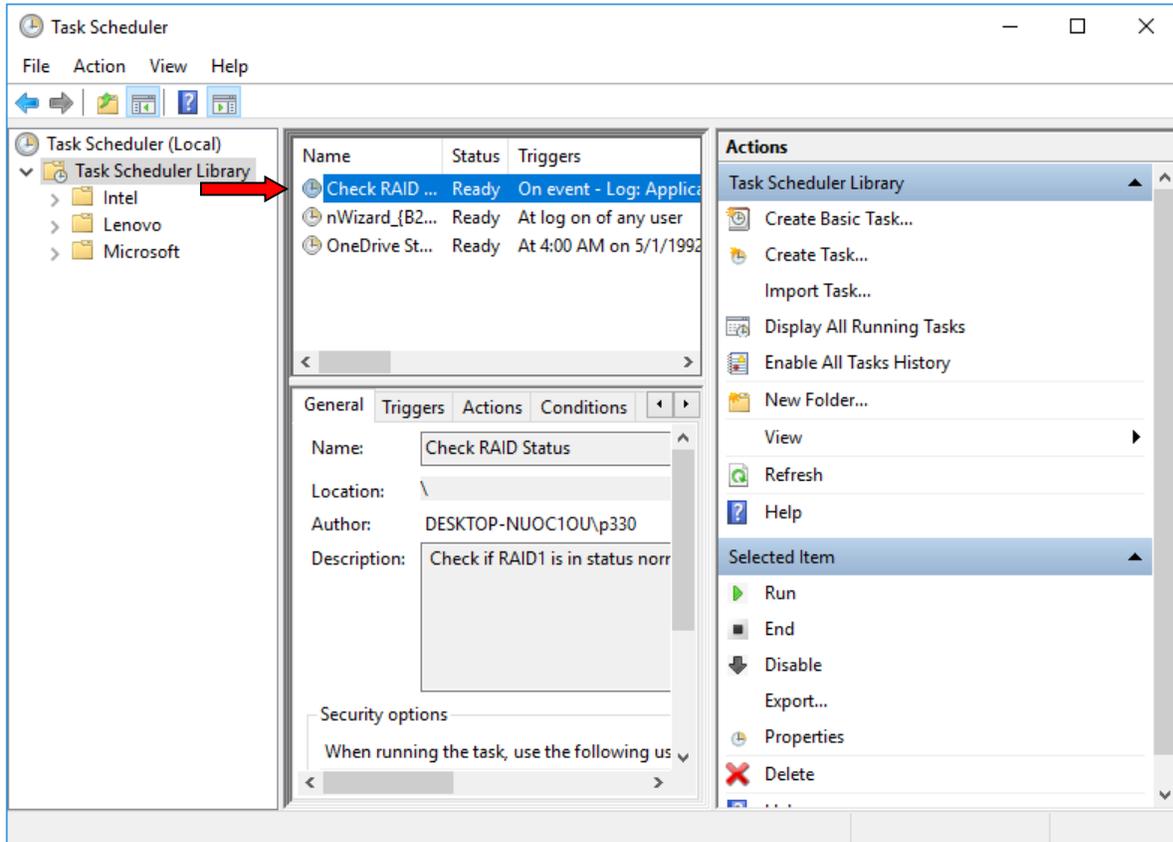
If the task is already running, then the following rule applies:

OK Cancel

Uncheck **Stop the task if it runs longer than** option from the Settings tab

Now you can hit **OK** to finish the task definition

Your task is now defined and active



In this example a script will be executed to show a message on the monitor. Depending on the need how to be notified can vary. An individual script can be used to log the event in a separate file or if a management system is in place a snmp trap can be send over the network.

Section 4 – Document Revision History

Version	Date	Author	Changes/Updates
1.0	11/27/2019	Gregor Linzmeier	Initial launch release